

1. A method of graphical block diagram modeling, comprising:
 providing graphical blocks interconnected to form a graphical subsystem block;
 constructing a graphical class instance of a graphical class that corresponds to the
 graphical subsystem block for use in a graphical block diagram model of a user;
 enabling a change to a value of a parameter of a selected one of the graphical blocks
 to be made by the user; and
 constructing from the graphical class instance and the change a graphical subclass
 instance that inherits structure from the graphical class.

2. The method of claim 1, wherein enabling comprises:
 providing to the user a user interface having a dialog box corresponding to the
 selected one of the graphical blocks to accept input from the user for any parameter that can
 be changed.

3. The method of claim 1, further comprising:
 storing data associated with the change in a data structure as subclass data, the
 subclass data in the data structure defining a subclass from which the graphical subclass
 instance is instantiated.

4. The method of claim 3, further comprising:
 wherein the subclass data includes a relative path to the graphical subsystem block, a
 name of the parameter and the changed value.

5. The method of claim 1, further comprising:
 merging the graphical subclass instance with the graphical class.

6. The method of claim 1, further comprising:
 associating a visual cue with the graphical subclass instance to allow the user to
 distinguish the graphical subclass instance from the graphical class instance.

1 7. The method of claim 6, wherein the user is provided a display of the selected
2 graphical block that has a title, and further wherein associating comprises modifying the title
3 to indicate to the user that a graphical subclass instance has been constructed for the selected
4 block.

5 8. The method of claim 6, wherein the user is provided with a display of the graphical
6 block diagram model that includes the graphical subsystem block, and further wherein
7 associating comprises modifying the display indicate to the user that a graphical subclass
8 instance has been constructed for the selected block.

1 9. The method of claim 10, wherein the structure comprises connectivity and layout
2 information.

1 10. A method of graphical block diagram modeling, comprising:
2 providing a class library comprising graphical classes defined in terms of graphical
3 subsystem blocks, the subsystem blocks comprising sub-blocks; and
4 creating a graphical subclass of a selected one of the graphical classes by modifying a
5 sub-block parameter that is not a top level parameter of the selected class, wherein the
6 subclass inherits subsequent changes to the graphical class.

1 11. A computer program product residing on a computer-readable medium for graphical
2 block diagram modeling, the computer program comprising instructions causing a computer
3 to:

4 provide graphical blocks interconnected to form a graphical subsystem block;
5 construct a graphical class instance of a graphical class that corresponds to the
6 graphical subsystem block for use in a graphical block diagram model of a user;
7 enable a change to a value of a parameter of one of the graphical blocks to be made
8 by the user; and

